

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client: US ACOE
Client ID: #2
Lab ID: 930115-2

Date Received: 10/17/92
Date Extracted: 10/30/92
Date Analyzed: 11/26/92

Sample Size: 0.030 Kg
% Solid: 15 %

Extract Volume : 10 mL
Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	530	U
11104-28-2	Aroclor-1221	530	U
11141-16-5	Aroclor-1232	530	U
53469-21-9	Aroclor-1242	530	U
12672-29-6	Aroclor-1248	530	U
11097-69-1	Aroclor-1254	1100	U
11096-82-5	Aroclor-1260	1100	U

(Q) - Qualifiers:

U: Analyzed for but not detected
B: Found in associated blank as well as sample
J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client:	US ACOE	Date Received:	10/17/92
Client ID:	#3	Date Extracted:	10/30/92
Lab ID:	930115-3	Date Analyzed:	11/26/92
Sample Size:	0.030 Kg	Extract Volume :	10 mL
% Solid:	19 %	Dilution Factor:	1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	420	U
11104-28-2	Aroclor-1221	420	U
11141-16-5	Aroclor-1232	420	U
53469-21-9	Aroclor-1242	420	U
12672-29-6	Aroclor-1248	420	U
11097-69-1	Aroclor-1254	840	U
11096-82-5	Aroclor-1260	840	U

(Q) - Qualifiers:

U: Analyzed for but not detected
B: Found in associated blank as well as sample
J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client:	US ACOE	Date Received: 10/17/92
Client ID:	#4	Date Extracted: 10/30/92
Lab ID:	930115-4	Date Analyzed: 11/26/92
Sample Size:	0.030 Kg	Extract Volume : 10 mL
% Solid:	30 %	Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	270	U
11104-28-2	Aroclor-1221	270	U
11141-16-5	Aroclor-1232	270	U
53469-21-9	Aroclor-1242	270	U
12672-29-6	Aroclor-1248	150	J
11097-69-1	Aroclor-1254	530	
11096-82-5	Aroclor-1260	530	

(Q) - Qualifiers:

U: Analyzed for but not detected
 B: Found in associated blank as well as sample
 J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client: US ACOE
Client ID: #5
Lab ID: 930115-5

Date Received: 10/17/92
Date Extracted: 10/30/92
Date Analyzed: 11/26/92

Sample Size: 0.030 Kg
% Solid: 25 %

Extract Volume : 10 mL
Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	320	U
11104-28-2	Aroclor-1221	320	U
11141-16-5	Aroclor-1232	320	U
53469-21-9	Aroclor-1242	320	U
12672-29-6	Aroclor-1248	320	U
11097-69-1	Aroclor-1254	640	U
11096-82-5	Aroclor-1260	640	U

(Q) - Qualifiers:

U: Analyzed for but not detected
B: Found in associated blank as well as sample
J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client:	US ACOE	Date Received: 10/17/92
Client ID:	#6	Date Extracted: 10/30/92
Lab ID:	930115-6	Date Analyzed: 11/26/92
Sample Size:	0.030 Kg	Extract Volume : 10 mL
% Solid:	22 %	Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	360	U
11104-28-2	Aroclor-1221	360	U
11141-16-5	Aroclor-1232	360	U
53469-21-9	Aroclor-1242	360	U
12672-29-6	Aroclor-1248	360	U
11097-69-1	Aroclor-1254	730	U
11096-82-5	Aroclor-1260	730	U

(Q) - Qualifiers:

U: Analyzed for but not detected
 B: Found in associated blank as well as sample
 J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client: US ACOE
Client ID: #7
Lab ID: 930115-7

Date Received: 10/17/92
Date Extracted: 10/30/92
Date Analyzed: 11/26/92

Sample Size: 0.030 Kg
% Solid: 44 %

Extract Volume : 10 mL
Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	180	U
11104-28-2	Aroclor-1221	180	U
11141-16-5	Aroclor-1232	180	U
53469-21-9	Aroclor-1242	180	U
12672-29-6	Aroclor-1248	180	U
11097-69-1	Aroclor-1254	360	U
11096-82-5	Aroclor-1260	360	U

(Q) - Qualifiers:

- U: Analyzed for but not detected
- B: Found in associated blank as well as sample
- J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client:	US ACOE	Date Received: 10/17/92
Client ID:	#8	Date Extracted: 10/30/92
Lab ID:	930115-8	Date Analyzed: 11/26/92
Sample Size:	0.030 Kg	Extract Volume : 10 mL
% Solid:	59 %	Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	140	U
11104-28-2	Aroclor-1221	140	U
11141-16-5	Aroclor-1232	140	U
53469-21-9	Aroclor-1242	140	U
12672-29-6	Aroclor-1248	140	U
11097-69-1	Aroclor-1254	270	U
11096-82-5	Aroclor-1260	270	U

(Q) - Qualifiers:

U: Analyzed for but not detected
 B: Found in associated blank as well as sample
 J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client: US ACOE
Client ID: #9
Lab ID: 930115-9

Date Received: 10/17/92
Date Extracted: 10/30/92
Date Analyzed: 11/26/92

Sample Size: 0.030 Kg
% Solid: 24 %

Extract Volume : 10 mL
Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	330	U
11104-28-2	Aroclor-1221	330	U
11141-16-5	Aroclor-1232	330	U
53469-21-9	Aroclor-1242	330	U
12672-29-6	Aroclor-1248	330	U
11097-69-1	Aroclor-1254	670	U
11096-82-5	Aroclor-1260	670	U

(Q) - Qualifiers:

- U: Analyzed for but not detected
- B: Found in associated blank as well as sample
- J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client: US ACOE
Client ID: #10
Lab ID: 930115-10

Date Received: 10/17/92
Date Extracted: 10/30/92
Date Analyzed: 11/26/92

Sample Size: 0.030 Kg
% Solid: 21 %

Extract Volume : 10 mL
Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016		
11104-28-2	Aroclor-1221	380	U
11141-16-5	Aroclor-1232	380	U
53469-21-9	Aroclor-1242	380	U
12672-29-6	Aroclor-1248	380	U
11097-69-1	Aroclor-1254	380	U
11096-82-5	Aroclor-1260	760	U
		760	U

(Q) - Qualifiers:

U: Analyzed for but not detected
B: Found in associated blank as well as sample
J: Estimated value, below quantitation limit

PESTICIDE/PCB ORGANICS ANALYSIS DATA SHEET
Method 8080

Client: US ACOE
Client ID: PBLK15
Lab ID: S115

Date Received:
Date Extracted: 10/30/92
Date Analyzed: 11/26/92

Sample Size: 0.030 Kg
% Solid: 100 %

Extract Volume : 10 mL
Dilution Factor: 1

CAS No.	COMPOUND	Concentration Units:	
		ug/Kg	Q
12674-11-2	Aroclor-1016	80	U
11104-28-2	Aroclor-1221	80	U
11141-16-5	Aroclor-1232	80	U
53469-21-9	Aroclor-1242	80	U
12672-29-6	Aroclor-1248	80	U
11097-69-1	Aroclor-1254	160	U
11096-82-5	Aroclor-1260	160	U

(Q) - Qualifiers:

- U: Analyzed for but not detected
- B: Found in associated blank as well as sample
- J: Estimated value, below quantitation limit

2E
SOIL PESTICIDE SURROGATE RECOVERY

Lab Name: Energy and Environmental Engineering, Inc.

Lab Code: E3I

Case No.: 91151 SDG No.:

	CLIENT SAMPLE NO.	S1 (DBC) #
01	PBLK15	117
02	S115MSB	110
03	#1	105
04	#1 MS	86
05	#1 MSD	55
06	#2	99
07	#3	95
08	#4	115
09	#5	116
10	#6	107
11	#7	85
12	#8	124
13	#9	128
14	#10	103
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		

S1 (DBC) = Dibutylchloroendate

* Values outside of QC limits

Column used to flag recovery values

D Surrogates diluted out

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011501

#1

Date Received: 10/17/92
Date Prepared: 10/31/92

Matrix: SOIL
% Solids: 28.9

Elements Identified and Measured
Concentrations in mg/kg dry weight

		Method
Arsenic	[4]	F
Cadmium	<3	P
Chromium	18	P
Copper	28	P
Lead	63	F
Zinc	136	P

Comments:

"<" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.
Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury
C - colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011502

#2

Date Received: 10/17/92
Date Prepared: 10/31/92

Matrix: SOIL
% Solids: 18.3

Elements Identified and Measured
Concentrations in mg/kg dry weight

		Method
Arsenic	[3]	F
Cadmium	<4	P
Chromium	[18]	P
Copper	39	P
Lead	45	F
Zinc	126	P

Comments:

"<" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.
Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury
C - colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011503

#3

Date Received: 10/17/92

Date Prepared: 10/31/92

Matrix: SOIL
% Solids: 17.7

Elements Identified and Measured
Concentrations in mg/kg dry weight

		Method
Arsenic	[4]	F
Cadmium	<4	P
Chromium	[21]	P
Copper	39	P
Lead	66	F
Zinc	153	P

Comments:

"<" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.
Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury
C - colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011504

#4

Date Received: 10/17/92

Matrix: SOIL

Date Prepared: 10/31/92

% Solids: 25.4

Elements Identified and Measured Concentrations in mg/kg dry weight

		Method
Arsenic	[5]	F
Cadmium	[5]	P
Chromium	23	P
Copper	47	P
Lead	131	F
Zinc	258	P

Comments:

"<" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.

Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury

C - colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011505

#5

Date Received: 10/17/92

Date Prepared: 10/31/92

Matrix: SOIL
% Solids: 16.0

Elements Identified and Measured
Concentrations in mg/kg dry weight

		Method
Arsenic	[4]	F
Cadmium	[6]	P
Chromium	28	P
Copper	43	P
Lead	61	F
Zinc	209	P

Comments:

"<" means that the element was not detected and that its concentration is than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.
Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury
C - colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011506

#6

Date Received: 10/17/92

Matrix: SOIL

Date Prepared: 10/31/92

% Solids: 22.6

Elements Identified and Measured
Concentrations in mg/kg dry weight

		Method
Arsenic	[5]	F
Cadmium	<3	P
Chromium	22	P
Copper	35	P
Lead	50	F
Zinc	164	P

Comments:

"<" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.

Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury

C - colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011507

#7

Date Received: 10/17/92

Date Prepared: 10/31/92

Matrix: SOIL
% Solids: 49.6

Elements Identified and Measured
Concentrations in mg/kg dry weight

		Method
Arsenic	[2]	F
Cadmium	[2]	P
Chromium	11	P
Copper	18	P
Lead	29	F
Zinc	88	P

Comments:
" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration less than five times the detection limit and therefore of lower precision.
Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury
- colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011508

#8

Date Received: 10/17/92

Matrix: SOIL

Date Prepared: 10/31/92

% Solids: 55.4

Elements Identified and Measured

Concentrations in mg/kg dry weight

		Method
Arsenic	[2]	F
Cadmium	[2]	P
Chromium	12	P
Copper	17	P
Lead	33	F
Zinc	84	P

Comments:

"<" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.

Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury

C - colorimetric

ENERGY AND ENVIRONMENTAL ENGINEERING

INORGANIC ANALYSIS DATA SHEET

CLIENT: Corps of Engineers

CLIENT SAMPLE ID NO.:

E3I SAMPLE ID NO.: 93011509

#9

Date Received: 10/17/92

Matrix: SOIL

Date Prepared: 10/31/92

% Solids: 26.9

Elements Identified and Measured
Concentrations in mg/kg dry weight

		Method
Arsenic	[5]	F
Cadmium	[6]	P
Chromium	17	P
Copper	29	P
Lead	54	F
Zinc	145	P

Comments:

"<" means that the element was not detected and that its concentration is less than the indicated value. A value in brackets indicates a concentration within five times the detection limit and therefore of lower precision.

Method codes: P - ICP; F - Furnace AA; CV - Cold vapor mercury

C - colorimetric

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